

17. The process according to claim 1 wherein said directionally aligning the graphene layers of the laminate comprises increasing a density of the laminate from the range of 1.1 g/cc to 1.35 g/cc to greater than 1.4 g/cc.
18. The process according to claim 1 wherein said directionally aligning the graphene layers of the laminate comprises increasing a density of each of said plurality of flexible graphite sheets to more than about 1.4 g/cc.
19. The process according to claim 1 wherein said directionally aligning the graphene layers of the laminate occurs prior to said forming said laminate.
20. A process for producing a graphite article comprising applying a sufficient amount of pressure to a plurality of flexible graphite sheets to directionally align at least one graphene layer of each sheet of flexible graphite and forming said plurality of flexible graphite sheets into a laminate.
21. The process according to claim 20 wherein an initial density of one or more of said plurality of flexible graphite sheets prior to said applying pressure comprises 1.1 g/cc to 1.35 g/cc and a final density of said one or more of said plurality of flexible graphite sheets comprises more than about 1.4 g/cc.
22. The process according to claim 20 wherein said applying pressure comprises calendering said plurality of flexible graphite sheets.
23. The process according to claim 20 wherein said applying pressure comprises pressing said plurality of flexible graphite sheets.
24. A process of producing a graphite article comprising forming a plurality of graphite sheets into a laminate and applying a sufficient amount of pressure to said laminate to directionally align at least one graphene layer of said laminate.
25. The process according to claim 24 wherein an initial density of said laminate prior to said applying pressure comprises 1.1 g/cc to 1.35 g/cc and a final density of said laminate comprises more than about 1.4 g/cc.
26. The process according to claim 24 wherein said applying pressure comprises calendering said laminate.
27. The process according to claim 24 wherein said applying pressure comprises pressing said laminate.